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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,672	04/27/2000	Ron Nevo	004198.P010x	4396

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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 11/21/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/560,672

Applicant(s)

NEVO ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-32 and 34-39 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-11, 15-19, 23-27 and 33 is/are rejected.
- 7) ☒ Claim(s) 6-8, 12-14 and 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. In the instant application filed August 27, 2000, Applicant has claimed priority, as a continuation-in-part, to parent application U.S. Pat. App. No. 09/439,946. However, Applicant has indicated that the filing date of 09/439,946 is November 12, 2000 which occurs after the filing date of the instant application (see page 1 of the specification as well as the oath/declaration). Upon review of application file histories U.S. Pat. App. No. 09/439,946 was filed November 12, 1999. Applicant should make appropriate corrections.
2. Furthermore, regarding Applicant's claim for priority as a continuation-in-part, any claim in a continuation-in-part application which is directed *solely* to subject matter adequately disclosed under 35 U.S.C. 112 in the parent nonprovisional application is entitled to the benefit of the filing date of the parent nonprovisional application. However, if a claim in a continuation-in-part application recites a feature which was not disclosed or adequately supported by a proper disclosure under 35 U.S.C. 112 in the parent nonprovisional application, but which was first introduced or adequately supported in the continuation-in-part application, such a claim is entitled only to the filing date of the continuation-in-part application. See *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995); *Transco Products, Inc. v. Performance Contracting Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994); *In re Von Lagenhoven*, 458 F.2d 132, 136, 173 USPQ 426, 429 (CCPA 1972); and *Chromalloy American Corp. v. Alloy Surfaces Co., Inc.*, 339 F. Supp. 859, 874, 173 USPQ 295, 306 (D. Del. 1972). Independent claims 1, 9 and 17 recite the feature of first and second subsets and remaining independent claims 23, 28 and 35 recite the

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feature of a multi-protocol apparatus/manager with long packet transmission considerations; these features do not appear to be disclosed in the parent application. Thus, the pending claims of the instant application are entitled only to the filing date of August 27, 2000.

Claim Objections

3. Claims 1 and 2 are objected to because of the following informalities: "said first and second apparatuses" (claim 1, last line; and claim 2, last two lines) should be changed to either "said first and second plurality of apparatuses" or "said first and second subsets"; and "The apparatus of claim 1" (claim 2, first line) should be changed to "The apparatuses of claim 1". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15, 23-27 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 33 recite protocols, such as Bluetooth and Home RF, without reference to a specific version and/or publication date of the particular protocol, rendering the claim indefinite. Applicant may overcome this rejection by amending the claims to include, e.g., a specific edition and/or publication date of the particular claimed protocols. Protocols identified

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as 802.11 frequency hopping, 802.11 direct sequence, 802.11a, and 802.11b should also be identified by the appropriate version date or year, such as "(1999)".

Claim 23 recites the limitation "said first network devices" in the same claim. There is insufficient antecedent basis for this limitation in the claim. Applicant may overcome this rejection by amending the claim to instead recite "said first plurality of apparatuses", if appropriate.

Claims 24-27 are rejected for being dependent upon a rejected base claim. Applicant may overcome this rejection by amending claim 23 as suggested above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 9-11 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,208,635 to Altvater et al. in view of U.S. Patent No. 6,643,522 to Young.

Regarding claims 1, 9 and 17, Altvater teaches a collection of networked apparatuses comprising: a first plurality of apparatuses (e.g., see FIG. 5) including first (e.g., 32) and second (e.g., 33) subsets wirelessly networked together, with each apparatus being equipped to communicate wirelessly in accordance with a first frequency hopping protocol (e.g., see col. 6, line 61 – col. 7, line 16 and FIG. 2), with the first and second subsets operating in accordance with a first and a second frequency hopping pattern (e.g., see col. 9, lines 25-35) based on a first

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and a second pseudo random pattern (e.g., see FIG. 2 where $k = 7, 50, 10, \dots, 63$), wherein the first and second subsets of the first plurality of apparatuses are operationally synchronized (e.g., offset by a time slot, see col. 9, lines 29-35) to proactively reduce interference between the first apparatuses (e.g., see col. 9, lines 36-55).

However, Altvater may not specifically disclose a second plurality of apparatuses operating with a second protocol are synchronized with respect to the first plurality of apparatuses.

Young also teaches a collection of wirelessly networked apparatuses (e.g., see FIG. 2) and further teaches the apparatuses have the capability to communicate in accordance with a second protocol (or alternately, the first protocol), whereby a second plurality of apparatuses (e.g., Radio C and Radio D in a second system, wherein Radio A and Radio B comprise a first system, e.g., see col. 4, lines 51-55) wirelessly networked together are each equipped to communicate wirelessly in accordance with a second protocol (e.g., see col. 2, lines 36-53). Furthermore, the second plurality of apparatuses operate in a manner complementary to the synchronized operation of the first plurality of apparatuses to proactively reduce interference between the first and second plurality of apparatuses (e.g., see col. 7, line 37 – col. 10, line 41). The teachings of Young provide simultaneous dual mode operation and multiple services for users of different systems (e.g., see col. 2, line 65 – col. 3, line 12). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Young to the system of Altvater in order to provide simultaneous dual mode operation and multiple services for users of different systems.

Regarding claim 2, Altwater teaches apparatuses are operationally synchronized to a reference signal (e.g., synchronization signal, see col. 8, line 21 – col. 9, line 60) to effectuate the proactive reduction of interference between the apparatuses.

Regarding claim 3, as discussed above regarding claims 1, 9 and 17, Young teaches a multi-protocol apparatus (e.g., FIG. 5) which proactively reduces interference with first and second apparatuses. As discussed above, the teachings of Young provide simultaneous dual mode operation and multiple services for users of different systems (e.g., see col. 2, line 65 – col. 3, line 12). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Young to the system of Altwater in order to provide simultaneous dual mode operation and multiple services for users of different systems.

Regarding claims 4, 5, 10, 11, 18 and 19, Altwater teaches synchronization as discussed above regarding claim 2, and Altwater in view of Young teach a multi-protocol apparatus as discussed above regarding claim 3. Further, the stations of Altwater implicitly comprise control logic to operate complementary to the synchronization and alignment (e.g., see FIG. 2; col. 6, line 61 – col. 7, line 24; and col. 9, lines 21-55).

Regarding claim 15, Young teaches a first protocol is Bluetooth, and a second protocol is selected from a group consisting of 802.11 frequency hopping, 802.11 direct sequence, and Home RF (e.g., see col. 10, lines 15-36). While Young may not specifically disclose 802.11a and 802.11b are also considered within the group, Young teaches the group consists of 802.11 WLAN which implicitly comprises 802.11a and 802.11b (e.g., see col. 10, line 32).

Regarding claim 16, Young teaches the invention applies to a personal digital assistant (e.g., see col. 3, lines 47-61) and 802.11 WLAN products used in an office infrastructure (e.g.,

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see col. 1, lines 28-42) which implies desktop and/or laptop devices are utilized. Thus, Young clearly anticipates the apparatus is selected from a group consisting of a desktop type, notebook type and a palm size type.

Allowable Subject Matter

8. Claims 28-32 and 34-39 are allowed.

Claims 6-8, 12-14 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23 and 33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 24-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

claims 6, 12 and 20 recite control logic includes logic to effectuate the alignment to the reference signal incrementally and in a selected one of at least a first and second manner depending on an amount of misalignment with a transmission time slot;

claims 7, 8, 13, 14, 21 and 22 include further limitations and depend upon claims 6, 12 and 20, respectively, and are therefore also allowable;

claims 23, 28 and 35 recite an apparatus/manager which facilitates reduction of interference among the other apparatuses including at least facilitating prospective anticipation of whether interference will occur during transmission of a long packet by one of the apparatuses wherein the transmission of a long packet spans multiple ones of the successive frequencies; and

claims 24-27, 29-34 and 36-39 include further limitations and depend upon claims 23, 28 and 35, respectively, and are therefore also allowable.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,812,930 to Zavrel discloses a wireless system comprising communication channels defined by different protocols; U.S. Patent No. 6,272,120 to Alexander discloses a multi-radio bridge using a plurality of hopping sequences; and U.S. Patent No. 6,278,723 to Meihofer et al. discloses a method an apparatus for minimizing interference among neighboring wireless networks.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.



Justin M Philpott



HUY D. VU
SUPERVISORY PATENT EXAMINER
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